

Mr. Dennis Grenier
Elkhart Brass Manufacturing Company, Inc.
P.O. Box 1127
Elkhart, Indiana 46515

Re: Minor Source Modification No:
039-10941-00072

Dear Mr. Grenier:

Elkhart Brass Manufacturing Company, Inc. applied for a Part 70 operating permit on December 13, 1996, for the fire fighting equipment manufacturing source. An application to modify the source was received on May 7, 1999. Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

One (1) brass and aluminum casting line, identified as the Sinto Line, at the existing fire fighting equipment manufacturing source. The Sinto Line will consist of mold making, pouring, cooling, and shakeout operations, have a capacity of 2.0 tons per hour of metal and 16 tons per hour of sand, and exhaust to stack S20.

The melt capacity of the source will not change and there will be no increase in emissions from existing facilities.

The proposed Minor Source Modification approval will be incorporated into the pending Part 70 permit application pursuant to 326 IAC 2-7-10.5(l)(3). The source may begin operation upon issuance of the source modification approval.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, contact CarrieAnn Ortolani, c/o OAM, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 516-691-3395 or in Indiana at 1-800-451-6027 (ext 516-691-3395).

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Management

Attachments
CAO/MES

cc: File - Elkhart County
U.S. EPA, Region V
Air Compliance Section Inspector - Doug Elliott
Compliance Data Section - Mindy Jones
Administrative and Development - Janet Mobley
Technical Support and Modeling - Michele Boner

PART 70 MINOR SOURCE MODIFICATION OFFICE OF AIR MANAGEMENT

**Elkhart Brass Manufacturing Company, Inc.
1302 West Beardsley Avenue
Elkhart, Indiana 46515**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this approval.

This approval is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Source Modification No.: 039-10941-00072	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A

SOURCE SUMMARY

This approval is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the emission units contained in conditions A.1 through A.2 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this approval pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates stationary fire fighting equipment manufacturing source.

Responsible Official: Dennis Grenier
Source Address: 1302 West Beardsley Avenue, Elkhart, Indiana 46515
Mailing Address: P.O. Box 1127, Elkhart, Indiana 46515
Phone Number: (219)295-8330
SIC Code: 3341
County Location: Elkhart
County Status: Attainment for all criteria pollutants
Source Status: Part 70 Permit Program
Minor Source, under PSD Rules;
Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source is approved to construct and operate the following emission units and pollution control devices:

One (1) brass and aluminum casting line, identified as the Sinto Line, at the existing fire fighting equipment manufacturing source. The Sinto Line will consist of mold making, pouring, cooling, and shakeout operations, have a capacity of 2.0 tons per hour of metal and 16 tons per hour of sand, and exhaust to stack S20.

A.3 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22); and
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONSTRUCTION CONDITIONS

B.1 Permit No Defense [IC 13]

This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions [326 IAC 2-7-1]

Terms in this approval shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)][326 IAC 2-7-10.5(i)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

SECTION C GENERAL OPERATION CONDITIONS

C.1 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)(C)]

- (a) Where specifically designated by this approval or required by an applicable requirement, any application form, report, or compliance certification submitted under this approval shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

C.2 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this approval, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this approval, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that failure to implement the Preventive Maintenance Plan does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM,. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plan whenever lack of proper maintenance causes or contributes to any violation.

C.3 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this approval.
- (b) Any application requesting an amendment or modification of this approval shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

C.4 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this approval:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.5 Operation of Equipment [326 IAC 2-7-6(6)]

Except as otherwise provided in this permit, all air pollution control equipment listed in this approval and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

Testing Requirements [326 IAC 2-7-6(1)]

C.6 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

- (b) All test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

C.7 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this permit. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

C.8 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] [326 IAC 2-7-6]

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this approval exceed the level specified in any condition of this approval, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
 - (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate approval conditions may be grounds for immediate revocation of the approval to operate the affected facility.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

C.9 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

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- (a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this approval shall be performed at all times the equipment is operating at normal representative conditions.
 - (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this approval is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this approval.
 - (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
 - (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
 - (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
 - (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.10 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this approval;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this approval, and whether a deviation from a approval condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of approval issuance.

C.11 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

- (a) The reports required by conditions in Section D of this approval shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

- (b) Unless otherwise specified in this approval, any notice, report, or other submission required by this approval shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (c) Unless otherwise specified in this approval, any quarterly or semi-annual report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) The first report shall cover the period commencing on the date of issuance of this approval and ending on the last day of the reporting period.

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]

One (1) brass and aluminum casting line, identified as the Sinto Line, at the existing fire fighting equipment manufacturing source. The Sinto Line will consist of mold making, pouring, cooling, and shakeout operations, have a capacity of 2.0 tons per hour of metal and 16 tons per hour of sand, and exhaust to stack S20.

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6-3-2(c)] [326 IAC 2-2]

- (a) Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the Sinto Line shall not exceed 28.4 pounds per hour when operating at a process weight rate of 18.0 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour.}$$

- (b) Any change or modification which results in an increase in PM emissions to 100 tons per year or more from the Sinto Line will cause this modification to be a major modification to an existing major source pursuant to 326 IAC 2-2, Prevention of Significant Deterioration, and prior approval is required.

Compliance Determination Requirements

D.1.2 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.1.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR MANAGEMENT
COMPLIANCE DATA SECTION**

**PART 70 SOURCE MODIFICATION
CERTIFICATION**

Source Name: Elkhart Brass Manufacturing Company, Inc.
Source Address: 1302 West Beardsley Avenue, Elkhart, Indiana 46515
Mailing Address: P.O. Box 1127, Elkhart, Indiana 46515
Source Modification No.: 039-10941-00072

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this approval.

Please check what document is being certified:

- 9 Test Result (specify) _____
- 9 Report (specify) _____
- 9 Notification (specify) _____
- 9 Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**Indiana Department of Environmental Management
Office of Air Management**

**Technical Support Document (TSD) for a Source Modification
to a Part 70 Operating Permit**

Source Background and Description

Source Name:	Elkhart Brass Manufacturing Company, Inc.
Source Location:	1302 Beardsley Avenue, Elkhart, Indiana 46515
County:	Elkhart
SIC Code:	3341
Operation Permit No.:	T 039-7635-00072
Operation Permit Issuance Date:	Not yet issued
Source Modification No.:	039-10941-00072
Permit Reviewer:	CarrieAnn Ortolani

The Office of Air Management (OAM) has reviewed a modification application from Elkhart Brass Manufacturing Company, Inc. relating to the construction and operation of one (1) brass and aluminum casting line, identified as the Sinto Line, at the existing fire fighting equipment manufacturing source. The Sinto Line will consist of mold making, pouring, cooling, and shakeout operations, have a capacity of 2.0 tons per hour of metal and 16 tons per hour of sand, and exhaust to stack S20. The melt capacity of the source will not change and there will be no increase in emissions from existing facilities.

History

On May 7, 1999, Elkhart Brass Manufacturing Company, Inc. submitted an application to the OAM requesting to add a brass and aluminum casting line, identified as the Sinto Line at the existing fire fighting equipment manufacturing source. Elkhart Brass Manufacturing Company, Inc. applied for a Part 70 permit on December 13, 1996. The Part 70 permit has not been issued at this time. All conditions pertaining to this minor source modification will be incorporated into the Part 70 permit.

Existing Approvals

The source applied for a Part 70 Operating Permit on December 13, 1996. The source has been operating under previous approvals including, but not limited to, the following:

Registered Operation Status, Old Permit No. 20-05-87-0616, issued on June 9, 1987.

Enforcement Issue

There are no enforcement actions pending which pertain to the Sinto Line.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
S20	Sinto Line	21.0	4.33	27,000	90

Recommendation

The staff recommends to the Commissioner that the Minor Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on May 7, 1999. Additional information was received on May 27, June 1, and June 3, 1999.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 and 2 of 2).

Potential To Emit - Sinto Line

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.” The following tables represent the potential to emit of the new Sinto Line, only.

Pollutant	Potential To Emit (tons/year)
PM	20.2
PM ₁₀	20.2
SO ₂	0.175
VOC	11.7
CO	52.7
NO _x	0.088

Note: For the purpose of determining Title V applicability for particulates, PM₁₀, not PM, is the regulated pollutant in consideration.

HAPS	Potential To Emit (tons/year)
Lead	1.94
Phenols	0.011
Benzene	0.073
Toluene	0.051
m-Xylene	0.006

HAPS	Potential To Emit (tons/year)
o-Xylene	0.006
Naphthalene	0.011
Formaldehyde	0.034
Acrolein	0.006
Nickel	0.506
Manganese	0.071
Beryllium	0.001
TOTAL	2.71

- (a) The potentials to emit (as defined in 326 IAC 2-1.1-1(16)) of PM, PM₁₀, and VOC are less than 25 tons per year and greater than 5 tons per year. The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of CO is less than 100 tons per year and greater than 25 tons per year. The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of lead is less than 5 tons per year and greater than 0.2 tons per year for an existing source with a potential to emit lead of less than 5 tons per year. Therefore, this modification is a minor source modification to a Part 70 source.
- (b) **Fugitive Emissions**
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

Actual Emissions

The following table shows the actual emissions from the existing source. This information reflects the 1998 emission data supplied by the source. With the exception of lead, the HAP emissions are the emissions on file at the OAM, because some HAP emissions were not included in the application.

Pollutant	Actual Emissions (tons/year)
PM	5.34
PM ₁₀	5.29
SO ₂	0.002
VOC	3.10
CO	6.90
NO _x	0.399
HAP (Lead)	0.294
HAP (Xylene)	1.30

Pollutant	Actual Emissions (tons/year)
HAP (MEK)	0.035
HAP (Ethylbenzene)	0.088
HAP (Toluene)	0.024
HAP (MIBK)	0.023

- (a) This existing source is not a major stationary source because even though it is one of the 28 listed source categories (secondary metal production), it does not emit 100 tons per year or more of any regulated pollutant. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.
- (b) The source applied for a Part 70 permit on December 13, 1996, because the estimated xylene emissions from the existing source were greater than 10 tons per year. Therefore, the source is subject to the requirements of 326 IAC 2-7.

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the modification.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
Sinto Line	20.2	20.2	0.175	11.7	52.7	0.088	2.71
PSD Threshold Level	100	100	100	100	100	100	N/A

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply. There are no limitations on the potential to emit of the Sinto Line.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM ₁₀	attainment
SO ₂	attainment
NO ₂	attainment
Ozone	attainment
CO	attainment
Lead	attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 326 IAC 20; 40 CFR Part 61 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

A Preventive Maintenance Plan (PMP) is not specifically required for the Sinto Line because there are no limits on potential to emit, no applicable NSPS or NESHAP, no control device, and actual emissions of PM, SO₂ and VOC are less than 25 tons per year.

326 IAC 1-7 (Stack Height Provisions)

The potential emissions before controls of particulate matter and sulfur dioxide are less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 1-7 are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC in Elkhart County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year). A condition requiring the annual emission statement for the entire source will be included in the Part 70 permit.

326 IAC 5-1 (Visible Emissions Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 2-4.1-1 (New Source Toxics Control)

Since the proposed Sinto Line has potential emissions of less than 10 tons per year of each individual HAP and less than 25 tons per year of any combination of HAPs, the requirements of 326 IAC 2-4.1-1 are not applicable.

326 IAC 6-3-2 (Process Operations)

The particulate matter (PM) from the Sinto Line shall be limited to 28.4 pounds per hour when operating at a process weight rate of 18.0 tons per hour (2.0 tons of metal and 16.0 tons of sand). Since the potential to emit PM from the Sinto Line is 4.62 pounds per hour, the Sinto Line will comply with this rule. This limitation is computed by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

326 IAC 8-1-6 (New Facilities; General reduction requirements)

Since the Sinto Line has a potential to emit PM less than 25 tons per year, the requirements of 326 IAC 8-1-6 are not applicable.

326 IAC 9-1 (Carbon Monoxide Emission Limits)

Since this process is not a petroleum refinery, ferrous metal smelter, or refuse incinerator, the requirements of 326 IAC 9-1 are not applicable.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

There are no mandatory compliance monitoring requirements applicable to the Sinto Line.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Part 70 Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations (page 2 of 2 of TSD Appendix A).

Conclusion

The operation of this one (1) brass and aluminum casting line, identified as the Sinto Line, shall be subject to the conditions of the attached proposed Permit No. 039-10941-00072.

**Appendix A: Emission Calculations
Sinto Line**

Company Name: Elkart Brass Mfg. Co., Inc.
Address City IN Zip: 1302 West Beardsley Avenue, Elkhart, Indiana 46515
Minor Source Modification: 039-10941
Plt ID: 039-00072
Reviewer: CarrieAnn Ortolani
Date: May 7, 1999

Maximum Capacity

2.0	tons of metal per hour
16.0	tons of sand per hour

Pollutant	Emission factor (lbs/ton of metal)	Emissions (lbs/hr)	Emissions (tons/yr)
PM	2.31	4.62	20.2
PM-10	2.31	4.62	20.2
SOx	0.02	0.040	0.175
NOx	0.01	0.020	0.088
VOC	1.34	2.68	11.7
CO	6.02	12.0	52.7
Lead	0.221	0.442	1.94

Source of Emission Factors

No emission factors available for brass foundries

PM, PM-10 and Lead emission factors developed by stack testing at the existing Hunter Line in November 1993.

Stack test emission factors are the highest test results plus a safety factor of 2

VOC emission factors are from AP-42 emissions from gray iron foundries (SCC 3-04-003-20 and SCC 3-04-003-31)

NOx and SOx emission factors are from AP-42 emissions from gray iron foundries (SCC 3-04-003-20) and FIRE version 6.01.

CO emission factors are from Scott, W.D. et al 1978, Chemical Emissions from Foundry Molds,

Transactions of the American Foundrymen's Society, Vo. 86, pp. 203-208

Appendix A: Emission Calculations
Sinto Line Hazardous Air Pollutant Emissions

Company Name: Elkart Brass Mfg. Co., Inc.
Address City IN Zip: 1302 West Beardsley Avenue, Elkhart, Indiana 46515
Minor Source Modification: 039-10941
Plt ID: 039-00072
Reviewer: CarrieAnn Ortolani
Date: May 7, 1999

Maximum Capacity

2.0	tons of metal per hour
16.0	tons of sand per hour

Green Sand Binder Emissions

Pollutant	Emission factor (lbs/ton of metal)	Emissions (lbs/hr)	Emissions (tons/yr)
Phenols	1.22E-03	2.44E-03	1.07E-02
Benzene	8.30E-03	1.66E-02	7.27E-02
Toluene	5.78E-03	1.16E-02	5.06E-02
m-Xylene	6.42E-04	1.28E-03	5.62E-03
o-Xylene	6.42E-04	1.28E-03	5.62E-03
Naphthalene	1.28E-03	2.56E-03	1.12E-02
Formaldehyde	3.90E-03	7.80E-03	3.42E-02
Acrolein	6.42E-04	1.28E-03	5.62E-03
Total		0.045	0.196

Aluminum and Brass Emissions

Pollutant	Worst Case Content (weight %)	PM Emission factor (lbs/ton of metal)	Emission factor* (lbs/ton of metal)	Emissions (lbs/hr)	Emissions (tons/yr)
Nickel	2.50%	2.31	5.78E-02	0.116	0.506
Manganese	0.35%	2.31	8.09E-03	0.016	0.071
Beryllium	0.007%	2.31	1.62E-04	0.0003	0.001
Total				0.132	0.578

*Emission factor is overly conservative since PM emissions can be sand.

Pollutant	Emission factor (lbs/ton of metal)	Emissions (lbs/hr)	Emissions (tons/yr)
Lead	2.21E-01	0.442	1.94

Total HAP emissions:	Emissions (lbs/hr)	Emissions (tons/yr)
	0.619	2.71

Source of Emission Factors

Emission Factors for Green Sand Binders

Phenols, Toluene, m-Xylene, o-Xylene, Naphthalene, and Acrolein emission factors are from Scott, W.D. et al 1978, Chemical Emissions from Foundry Molds, Transacti
Benzene and Formaldehyde emission factors from Wisconsin Cast Metals Association

Lead emission factors developed by stack testing at the existing Hunter Line in November 1993.

Stack test emission factors are the highest test results plus a safety factor of 2

Metal emissions calculated based on aluminum and brass MSDS